

A1 to the immunodominant OVA-derived peptide SIINFEKL (SEQ ID NO: 22) and rat GM-CSF, as summarized below.

On page 10, please replace the paragraph starting on line 13 with the following:

A2 -- An immunostimulatory fusion protein construct of the invention may also include one or more sequence components selected from the group consisting of GM-CSF, a reporter sequence such as the immunodominant OVA-derived octapeptide SIINFEKL (OVA₂₅₇₋₂₆₄, SEQ ID NO: 22), one or more peptide signal sequences and a synthetic purification tag, e.g., an added C-terminal amino acid sequence.

On page 11, please replace the paragraph starting on line 6 with the following:

A3 -- The immunostimulatory fusion proteins of the invention may be modified by joining them, either covalently or noncovalently, with a reporter molecule. A wide variety of reporter molecules are known in the art and the selection of the reporter determines the assay format. For example, as detailed in Example 1, the OVA-derived immunodominant octapeptide SIINFEKL (OVA₂₅₇₋₂₆₄, SEQ ID NO: 22) was incorporated into exemplary immunostimulatory HER-2 fusion constructs and antigen presentation of the constructs evaluated. Briefly, the IL-2 secreting mouse T cell hybridoma B3Z, which responds to SIINFEKL (OVA₂₅₇₋₂₆₄, SEQ ID NO: 22), when bound to mouse MHC class I, was stimulated with DC that were pre-pulsed with the HER-2 fusion constructs, and the magnitude of response evaluated by measuring [³H]thymidine incorporation in proliferating IL-2 dependent cells, as an indicator of antigen presentation.

On page 13, please replace the paragraph starting on line 1 with the following:

A4 -- The exemplary HER500* construct (SEQ ID NO:8) was produced by expression of a coding sequence including in the 5' to 3' direction: the coding sequence for a 32 amino acid PAP signal sequence, the coding sequence for a 3 amino acid sequence of the mature PAP protein, an Ala Arg linker, the coding sequence for a 3 amino acid HER-2 signal sequence, the coding sequence for 289 amino acids of mature HER-2 membrane distal extracellular domain, an Ala linker, the coding sequence for the OVA-derived immunodominant octapeptide SIINFEKL (OVA₂₅₇₋₂₆₄, SEQ ID NO: 22), the coding sequence for 217 amino acids of the HER-2 membrane distal intracellular domain, three consecutive alanines, and six consecutive histidines.

On page 13, please replace the paragraph starting on line 9 with the following:

A5 -- The exemplary HER500*•rGM-CSF construct (SEQ ID NO:9) was produced by expression of a coding sequence including in the 5' to 3' direction: the coding sequence for a 32 amino acid PAP signal sequence, the coding sequence for a 3 amino acid sequence of the mature PAP protein, an Ala Arg linker, the coding sequence for a 3 amino acid HER-2 signal sequence, the coding sequence for 289 amino acids of mature HER-2 membrane distal extracellular domain, an Ala linker, the coding sequence for the OVA-derived immunodominant octapeptide

AS
SIINFEKL (OVA₂₅₇₋₂₆₄, SEQ ID NO: 22), the coding sequence for 217 amino acids of the HER-2 membrane distal intracellular domain, an Ala Ala linker, the coding sequence for mature rat GM-CSF (127 residues), and the coding sequence for glycine, alanine, four consecutive prolines, alanine, and six consecutive histidines.

On page 13, please replace the paragraph starting on line 19 with the following:

AB
-- The exemplary HER300*•rGM-CSF construct (SEQ ID NO:10) was produced by expression of a coding sequence including in the 5' to 3' direction: the coding sequence for a 32 amino acid PAP signal sequence, the coding sequence for a 3 amino acid sequence of the mature PAP protein, an Ala Arg linker, the coding sequence for a 3 amino acid HER-2 signal sequence, the coding sequence for 289 amino acids of mature HER-2 membrane distal extracellular domain, an Ala linker, the coding sequence for the OVA-derived immunodominant octapeptide SIINFEKL (OVA₂₅₇₋₂₆₄, SEQ ID NO: 22), an Ala linker, the coding sequence for mature rat GM-CSF (127 residues), and the coding sequence for glycine, alanine, four consecutive prolines, alanine, and six consecutive histidines.

On page 23, please replace the paragraph starting on line 25 with the following:

A7
-- The HER500*•rGM-CSF construct (SEQ ID NO: 4) was produced by expression of a coding sequence which included, in the 5' to 3' direction: a 32 amino acid PAP signal peptide, a 3 amino acid sequence of the mature PAP protein, an Ala Arg linker, a 3 amino acid HER-2 signal sequence, 289 amino acids of the mature HER-2 membrane distal extracellular domain, an Ala linker, the OVA-derived immunodominant octapeptide SIINFEKL (OVA₂₅₇₋₂₆₄, SEQ ID NO: 22), 217 amino acids of the HER-2 membrane distal intracellular domain, an Ala Ala linker, a 127 amino acid mature rat GM-CSF sequence, and Gly Ala Pro Pro Pro Pro Ala His His His His His (SEQ ID NO: 17).

On page 23, please replace the paragraph starting on line 33 with the following:

AS
-- The HER300*•rGM-CSF construct (SEQ ID NO: 5) was produced by expression of a coding sequence which included, in the 5' to 3' direction: a 32 amino acid PAP signal sequence, a 3 amino acid sequence of the mature PAP protein, an Ala Arg linker, a 3 amino acid HER-2 signal sequence, 289 amino acids of the mature HER-2 membrane distal extracellular domain, an Ala linker, the OVA-derived immunodominant octapeptide SIINFEKL (OVA₂₅₇₋₂₆₄, SEQ ID NO: 22), an Ala linker, a 127 amino acid mature rat GM-CSF sequence, and Gly Ala Pro Pro Pro Pro Ala His His His His His His (SEQ ID NO: 17).

On page 25, please replace the paragraph starting on line 6 with the following:

A9
-- The HER500 construct (SEQ ID NO: 1) was produced by expression of a coding sequence which included, in the 5' to 3' direction: a 32 amino acid PAP signal sequence, a 3

amino acid sequence of the mature PAP protein, an Ala Arg linker, 3 amino acids of HER-2 signal sequence, 289 amino acids of mature HER-2 membrane distal extracellular domain, 217 amino acids of the HER-2 membrane distal intracellular domain and a C-terminal tag consisting of Ala Ala Ala His His His His His His (SEQ ID NO: 15).--

On page 25, please replace the paragraph starting on line 12 with the following:

-- The HER500•hGM-CSF construct (SEQ ID NO: 2) was produced by expression of a coding sequence which included, in the 5' to 3' direction: a 32 amino acid PAP signal sequence, a 3 amino acid sequence of the mature PAP protein, an Ala Arg linker, 3 amino acids of HER-2 signal sequence, 289 amino acids of the mature HER-2 membrane distal extracellular domain, 217 amino acids of the HER-2 membrane intracellular domain, an Ala Ala linker, a 127 amino acid mature human GM-CSF sequence and a C-terminal tag consisting of Gly Ala Pro Pro Pro Pro Ala Ala Ala His His His His His His (SEQ ID NO: 16).--

On page 25, please replace the paragraph starting on line 19 with the following:

-- The HER500* construct (SEQ ID NO: 3) was produced by expression of a coding sequence which included, in the 5' to 3' direction: a 32 amino acid PAP signal sequence, a 3 amino acid sequence of the mature PAP protein, an Ala Arg linker, 3 amino acids of HER-2 signal sequence, 289 amino acids of the mature HER-2 membrane distal extracellular domain, an Ala linker, the OVA-derived immunodominant octapeptide SIINFELK (OVA₂₅₇₋₂₆₄, SEQ ID NO: 22), 217 amino acids of the HER2 membrane distal intracellular domain and a C-terminal tag consisting of Ala Ala Ala His His His His His His (SEQ ID NO: 15).--

On page 25, please replace the paragraph starting on line 26 with the following:

-- The HER500*rGM-CSF construct (SEQ ID NO: 4) was produced by expression of a coding sequence which included, in the 5' to 3' direction: a 32 amino acid PAP signal sequence, a 3 amino acid sequence of the mature PAP protein, an Ala Arg linker, 3 amino acids of HER-2 signal sequence, 289 amino acids of the mature HER-2 membrane distal extracellular domain, an Ala linker, the OVA-derived immunodominant octapeptide SIINFELK (OVA₂₅₇₋₂₆₄, SEQ ID NO: 22), 217 amino acids of the HER2 membrane distal intracellular domain, an Ala Ala linker, a 127 amino acid mature rat GM-CSF sequence and a C-terminal tag consisting of Gly Ala Pro Pro Pro Pro Ala His His His His His His (SEQ ID NO: 17).--

On page 25, please replace the paragraph starting on line 34 with the following:

-- The HER300*rGM-CSF construct (SEQ ID NO: 5) was produced by expression of a coding sequence which included, in the 5' to 3' direction: a 32 amino acid PAP signal sequence, a 3 amino acid sequence of the mature PAP protein, an Ala Arg linker, 3 amino acids of HER-2 signal sequence, 289 amino acids of the mature HER-2 membrane distal extracellular domain, an Ala linker, the OVA-derived immunodominant octapeptide SIINFELK (OVA₂₅₇₋₂₆₄, SEQ ID

.. AB NO: 22), an Ala linker, a 127 amino acid mature rat GM-CSF sequence and a C-terminal tag consisting of Gly Ala Pro Pro Pro Pro Ala His His His His His His (SEQ ID NO: 17).

On page 31, please replace the third row of the left column with the following:

-[Reporter peptide in constructs HER500* and HER500*ratGM-CSF: (OVA-derived immunodominant octapeptide SIINFEKL (OVA₂₅₇₋₂₆₄))--

Ally